

REMARKS

Claims 1-24 are all the claims pending in the application. Claim amendments are set forth reiterating the identification of an individual based on a face in the face portions which is otherwise described by the prior pending claim, as exemplified by claim 1, for example.

Applicants believe no additional search and/or consideration is required regarding the claim amendments. Therefore, Applicant requests entry of the amendments as they do not raise new issues.

The Examiner indicates that the arguments presented in the Amendment filed on January 31, 2008 were considered but are moot in view of new grounds of rejection based on newly cited art.

I. Rejection of claims 1-2, 8-9 and 20-24 under 35 U.S.C. § 103

Claims 1-2, 8-9 and 20-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Fuersich et al. (U.S. Pub. No. 2003/0044070) in view of Okano et al. (US 6,404,903).

Applicants traverse the rejections based on the following comments.

A. Claim 1

Claim 1 recites:

A face recognition method for recognizing face portions in an image based on image data of the image, comprising:
a detection step of detecting, in the image, eye portions which have undergone a predetermined color change, based on the image data;
a recognition step of recognizing face portions in the image based on the eye portions detected in the detection step; and
an identification step of identifying an individual person being photographed based on a face in the face portions recognized in the image.¹

¹ Emphasis added.

The Examiner correctly concedes that Fuersich fails to teach the claimed identification step, but contends that Okano teaches this feature of claim 1. In particular, the Examiner asserts that Column 9, lines 30-44, of Okano teaches an identification step of identifying an individual person being photographed based on the face portions recognized in the image. Although it appears that Okano teaches an individual identifying means for identification of a person, Okano merely teaches that identification of an individual is based on a collation of iris images (col. 9, lines 30-36). In particular, Okano teaches that the individual identifying means 4 analyzes an input image, recognizes (i.e., detects) the iris and creates an iris code therefrom (col. 9, line 66, to col. 10, line 4 and col. 10, lines 51-53). Thereafter, the iris code from the image is compared to iris codes of a recognition dictionary 2 to identify an individual (col. 10, lines 28-60). Thus, it appears that Okano teaches identifying an individual based on eye portions (i.e., iris images or codes) and not on recognized face portions, as required in claim 1. That is, according to claim 1, the detected eye portions are clearly different features of an individual than the recognized face portions. Thus, the comparison of iris codes taught in Okano is not equivalent to identifying an individual person being photographed based on a face in the face portions recognized in the image. Furthermore, Fuersich, alone or in combination with Okano, does not teach or suggest this feature.

In view of the above, Applicants submit that claim 1 is patentable for at least these reasons.

B. Claim 20

Claim 20 recites that “the identification step is performed only if the eye portions which have undergone the predetermined color change are detected,” which the Examiner asserts is implicitly taught by Okano. In particular, the Examiner asserts that Okano implicitly teaches

wherein the identification step is performed only if the eye portions which have undergone the predetermined color change are detected because if there are no eye portions in the input image then a comparison cannot take place (Okano, col. 11, lines 18-25). However, the “comparison” taught by Okano merely relies on a comparison of iris codes, and does not mention a detection of eyes which have undergone a predetermined color change. Thus, even if the eyes are open, it does not necessarily mean that eye portions which have undergone the predetermined color change are detected such that an identification step may be performed. In fact, Okano appears to teach that it is preferable that a predetermined color change (i.e., a discordant portion resulting from blur, out of focus, and even red-eye) does not exist such that a more accurate recognition result is determined (col. 3, lines 38-44, col. 4, lines 49-55 and col. 11, lines 18-25). Since many comparisons can be made, such as similarity in density pattern can be used as a basis of comparison, the color change is not inherent, contrary to the Examiner’s contention. Under the doctrine of “inherency,” if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element “is necessarily present in the thing described in the reference” *Cont'l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). “Inherent anticipation requires that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” (emphasis added) *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295, 63 U.S.P.Q.2d 1597, 1599 (Fed. Cir. 2002); see also MPEP §2112.

Therefore, in view of the above, the Examiner’s assertion that Okano implicitly teaches “the identification step is performed only if the eye portions which have undergone the predetermined color change are detected” does not appear to be supported. Thus, Applicants submit that claim 20 is patentable for at least this reason.

C. Claim 21

Claim 21 recites that “the identification step includes: searching for face images stored in a storage section that match the recognized face portions; and acquiring identification information stored in the storage section which is associated with a matched face image.”

Similar to the reasons presented above in conjunction with claim 1, Okano merely teaches searching through a recognition dictionary 2, which holds iris codes as data on features and user information (col. 9, lines 51-53). However, iris codes are not the equivalent to face images or face portions according to the claim language of claims 1 and 21. Therefore, Fuersich, alone or in combination with Okano, fails to teach or suggest this feature.

D. Claim 23

Claim 23 recites that “the identification step is performed only if the predetermined color change is detected.” However, claim 23 should be patentable for similar reasons presented above in conjunction with claim 20. In particular, even if eyes portions are detected, according to the disclosure of Okano, there is no suggestion that a color change must occur for an identification step to be performed. There is simply no support for making the inference asserted by the Examiner. Therefore, claim 23 should be patentable for at least this reason.

E. Remaining claims

Applicants submit that the remaining claims are patentable at least by virtue of their respective dependencies.

II. Rejection of claims 3-7, 11-12, 14-15 and 17-18 under 35 U.S.C. § 103

Claims 3-7, 11-12, 14-15, and 17-18 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Fuersich in view of Chen et al. (U.S. Pub. No. 2002/0081032), and in further view of Okano. However, claims 3-6 include analogous, though not necessarily coextensive

features recited in claim 1, which the Examiner concedes is not taught by the combination of Fuersich and Chen. Thus, the Examiner asserts that Okano corrects the deficiencies of Fuersich and Chen by teaching, for example, “an individual recognition section which identifies an individual person being photographed based on the face portions recognized in the image.” However, Okano fails to correct the deficiencies of Fuersich and Chen, and thus, claims 3-6 are patentable for similar reasons discussed for claim 1.

Applicants submit that the remaining claims are patentable at least by virtue of their respective dependencies.

III. Rejection of claim 10 under 35 U.S.C. § 103

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fuersich in view of Okano, and further in view of Nesterov et al. (U.S. Patent No. 6,980,691).

Applicants submit that claim 10 is patentable at least by virtue of its dependency upon claim 1. That is, Nesterov does not correct the deficiencies of Fuersich and Okano in conjunction with claim 1.

IV. Rejection of claims 13, 16 and 19 under 35 U.S.C. § 103

Claims 13, 16 and 19 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Fuersich in view of Chen, further in view of Okano, and further in view of Nesterov.

Applicants submit that claims 13, 16 and 19 are patentable at least by virtue of their dependencies upon claims 3, 4 and 6, respectively. That is, neither Chen, Okano nor Nesterov corrects the deficiencies of Fuersich in conjunction with claim 1.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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